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REMARKS

In the Office action, claims 10, 11, 13, 14, 30, 31 and 34 were rejected as anticipated by

Kowal; claims 1-8, 12, 32 and 35 were rejected as being unpatentable over Kowal in view of two

Kreidel references; claim 33 was rejected as being unpatentable over Kowal in view of Trickle;

claims 15 was rejected as being unpatentable over Kowal in view of Schwarz; and claim 9 was

rejected as being unpatentable over Kowal in view of Kreidel and Schwarz.

The independent claims that remain after this amendment, notably claims 1, 10, 30 and

35 have been amended to recite that the ferrule has a collet portion of the cylindrical interior wall

that is convex upon pull-up to swage the ferrule near the forward or front edge onto the tube end.

The claims further recite that the collet portion of the cylindrical interior wall of the ferrule is

deformed radially inwardly by a hinging action, and wherein the collet portion is axially adjacent

the forward or front edge.

The claims thus recite two distinct actions, the first being a radial compression to cause

the front edge to indent or penetrate the tube wall, and a hinging action that acts on an axially

adjacent collet portion and produces a swaged region near the front or forward edge that is

convex.

The art of record, and to the Applicants' knowledge no one prior, has produced a ferrule

that deforms during pull-up so as to both bite the tube and also produce the hinging action to grip

the tube end with a convex portion near the bite. Kowal and the other references of record

merely show the old concept of bending or bowing concavely the front edge inward to bite or

penetrate the tube wall. There is no additional deformation as recited in the presently amended

claims, such as the hinging to produce a convex portion near the bite to grip the tube end. This is

particularly so for the present independent and dependent claims that further recite a ferrule that

is case hardened about its entire surface.

In the Office action it is suggested that either portion 24 or 30 of Kowal is the 'collet

portion' axially behind the forward edge and that this collet portion is convex upon pull-up.

Applicants acknowledge that the portion 30 grips the tube end and appears to be illustrated with

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a convex appearance, however it seems clear that the portion 30 is not a collet portion that is

axially adjacent the forward edge and also does not produce a swaged region near the front edge

after pull-up. To the contrary the portion 30 is nowhere near the forward edge but rather is at the

back end of the sleeve 25. Moreover, the Office action states that the portion pointed at with the

numeral 24 of Kowal is a convex portion. Applicants must respectfully disagree. First, the

portion 24 is not apparently illustrated as being convex as best as can be discerned from the

drawings. Moreover, with the forward edge 29 being radially compressed inward and the back

end 30 being radially compressed inward it is not apparent how the region 24 could be convex

after pull-up. Still further, there is no suggestion that there is any further deformation action in

the Kowal design other than forward edge bite and the action near the region marked 30.

If Kowal indeed taught a convex swaged region near the forward edge as suggested in the

Office Action then there would be no need for the portion 30. The Kowal reference clearly

describes that the portion 30 is to provide vibration isolation for the forward bite (col. 5, lines 11-

19) and that it is located axially outwardly of the constricted nose portion biting edge. Still

further, Kowal shows no structure or geometry to the sleeve 25 that would produce the hinging

action and result as set forth in the pending claims.

Applicants traverse the rejections of the dependent claims including as to the combination

of references, and also traverse that the Trickle reference is prior art, however, further comment

will be deferred pending further examination of the amended independent claims. Applicants

also strongly traverse the suggestion that it would be obvious to case harden the Kowal ferrule.

Case hardening substantially changes the ability of a ferrule to deform and there is no basis on

which to conclude that the Kowal design would perform as intended if the ferrule were case

hardened.

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The present application is deemed to be in proper condition for allowance and favorable action is requested.

Respectfully submitted,

Dated: December 19, 2005

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